

## ABSTRACT OF THE DISCLOSURE

A method of laser beam machining which has a simple construction and which is capable of suitably processing a part to be processed by means of laser beams is provided. A plurality of laser diode arrays 3 are stacked and disposed in such a manner as to allow radiation of laser beams in the direction of a width  $W$  of a part 1 to be processed. Each of the laser diode arrays 3 is controlled such that outputs  $2R$ ,  $2L$  of laser beams with which the part 1 to be processed is irradiated in its width( $W$ )-wise marginal portions  $1R$ ,  $1L$  become higher than an output  $2C$  of laser beams with which the part 1 to be processed is irradiated in its width( $W$ )-wise central portion  $1C$ . While the part 1 to be processed is irradiated with the laser beams with the distribution of energy thus changed, the laser beams are displaced relatively in the longitudinal direction of the part 1 to be processed.